

# Legionellosis

## What is legionellosis?

Legionellosis is an infection caused by *Legionella* bacteria. Legionellosis can present as two distinct illnesses; Pontiac fever, a self-limited, flu-like illness; and Legionnaires' Disease, the more severe form involving pneumonia. The severity of the illness can be mild or result in pneumonia. Most cases occur as single isolated events, however outbreaks have been noted.

*Legionella* bacteria are ubiquitous in natural and manmade water environments, and multiply in the presence of warm water temperatures (25° to 45° C).

## How common is legionellosis?

Since 2000, an average of 13 cases of legionellosis have occurred yearly in Oklahoma. It is estimated that 8,000 to 18,000 cases of Legionnaires' disease occur each year in the United States.

## How severe is the illness?

The severity of legionellosis can range from a mild respiratory illness (Pontiac fever) to pneumonia (Legionnaires' disease).

Persons with Pontiac fever generally recover in two to five days without treatment. Up to 20% of healthy adults have antibodies showing previous exposure to the bacteria, but only a small percentage have a history of previous pneumonia.

## Where are *Legionella* bacteria found?

*Legionella* can be found in any type of water system. They have been found in the environment in creeks, ponds, and potting soil. The bacteria are prevalent in warm stagnant water such as those found in most plumbing systems, hot water tanks, water in cooling towers, evaporative condensers of large air conditioning systems, and hot tubs. Home and automobile air conditioners are **NOT** a source of *Legionella* bacteria.

## How is legionellosis spread?

The disease is acquired after inhaling mists from a water source that contains *Legionella* bacteria. The disease **can not** be spread from person-to-person.

## Who gets legionellosis?

People of any age can get legionellosis but the disease occurs most frequently in persons over 50 years of age. The disease most often affects those who smoke heavily, have chronic lung disease, or have underlying medical conditions that lower their immune system such as diabetes, cancer, or renal dysfunction. Persons taking certain drugs that lower their immune system, such as steroids, have an increased risk of being affected by legionellosis.

## What are the usual symptoms of legionellosis?

The early symptoms of legionellosis include muscle aches, headache, tiredness, loss of appetite, and coughing followed by high fever (102°F to 105°F), chills, and occasionally diarrhea. In Legionnaires' disease chest X-rays often show pneumonia.

## How soon do symptoms occur?

The period between exposures and onset of illness for Legionnaires' disease is two to ten days, but most often five to six days; for Pontiac fever it is five to 66 hours, but most often 24 to 48 hours.

## What is the treatment for legionellosis?

Antibiotics such as erythromycin, levaquin, or azithromycin are effective for treating Legionnaires' disease.

Pontiac fever requires no specific treatment.

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Phone (405) 271-4060  
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